

# **EXHIBIT 71**

## **SECOND MAO DECLARATION PLAINTIFFS' MOTION FOR CLASS CERTIFICATION**

### **MATERIAL SOUGHT TO BE SEALED**

**Additional possible linkouts:**

go/udc-spec

go/udc-ux (chatree ux summary)

go/udc-uxr (list of research)

~~go/udc-excellence (user principles -- need to rename this -- maybe discard)~~

go/udc-clients (auto-generated list of clients)

go/digory

go/chromarnia

go/[REDACTED]1-4perf

TODO:

Add links

**What's one thing you do really well that you plan to continue doing?**

I have proven myself to be a consensus builder in solving some of Google's most intractable cross-PA problems. I work directly with stakeholders who often hold diametrically opposing viewpoints, seek deep understanding, and work with them towards solutions.

Because the products I manage sit at the nexus of core Google product experiences, regulatory oversight, and revenue/growth, there are extremely restrictive requirements and launch timelines, with a potential massive downside to Google if we fail to execute effectively, and a potential massive upside if we are successful.

Three representative examples:

After work to align PM, Eng, UX, Privacy, Legal, Policy, and Marketing functions from virtually every major Google product---Search, YouTube, Maps and Geo, Android, Identity---the original Google Settings 2.0 project launched ahead of schedule as the centerpiece of our EU regulatory response.

With critical timelines and dozens of deeply engaged senior stakeholders I led the expansion of Google's data settings to support a new generation of assistive products, enabling a major launch of the Google Search App.

The relationship between Chrome, Google's user products, and Google Ads---and their nebulously overlapping account and data infrastructures---has been a widely acknowledged challenge for years. In the context of the Narnia 2 project, I co-led an effort to align these teams, resulting in product updates that are creating meaningful, intuitive interactions between the settings and data products for users in Chrome, Ads, and their Google Accounts.

**What's one thing you plan to do to have more impact?**

One of the most significant challenges in my current set of roles is that the bulk of the product discussions are happening in MTV with other product, legal, policy and marketing teams, but the entire UDC engineering team is based in MUC, so in the sharing of information and prioritization, nuance is sometimes lost.

On our teams, we have made significant improvements to processes, including shared rolling agenda documents with a focus on removing blockers and information sharing, and regularly taking time out to re-align on yearly and quarterly goals. Those have clearly seen positive results. But with the ongoing reality of constantly changing inputs and requirements from active stakeholders, or in some cases regulatory agencies, I need to get better at driving more forcefully towards finalization of specs, and more aggressively pushing back on timelines to give our engineering team the room they need to build great final products.

Ongoing work to improve the organizational support structure for policies site work and better documentation for self-serve client flows on UDC will help in meaningful ways. More importantly, I will find ways to get Eng and TPM more involved early in the process, so that they can flag potential long-pole issues or adjust existing workstreams accordingly.

**You are currently up for promotion. Provide your rationale.**

I am the PM lead for the ecosystem powering "One Google" and our "assistive products" vision. This vision depends on the free flow of data between products — the principle that when we have information, we put it to work relentlessly on behalf of our users. To fulfill that vision, we need to have clear contracts with our users about how we put information to work on their behalf, and we need to be operating safely within the context of privacy regulations around the world. My job is to make sure that we realize this vision in a way that makes sense to our users and in a way that meets the test of privacy regulators (and advocates) around the world.

When I joined the Identity org, Google was engaged in an active response to an EU regulatory action ([REDACTED]) that threatened our ability to operate in Europe. Google's vision of creating magical product experiences across our suite of Google products and platforms seemed in direct opposition to the European Union's approach to privacy and user consent. Further, we lacked the infrastructure to address regulatory concerns in a meaningful way across Google's complicated product landscape.

A few months after coming on board, I took the reins as the product lead for a core element of Google's response to [REDACTED] known at the time as "Google Settings 2.0" (part of page@'s broader "Google 2.0" program). I crafted and evangelized a vision that aligned the way we handle personal data at Google with our ambitious product goals, while also providing a

standard of consent, control, and transparency that was strong enough and flexible enough to meet both the current and (we hope) future concerns of our most critical regulatory bodies.

The resulting set of launches comprise a suite of products that together are the backbone of Google's most sensitive consent and privacy moments for our users, and they have been held up as exemplars in our ongoing presentations to regulators across Europe. Moving these products forward required deep collaboration and consensus building across huge cross-functional, cross-PA teams, working within extremely tight legal and policy constraints. In addition, they require a delicate user sensibility, with an understanding that these critical, sensitive moments represent unique opportunities to build user trust and understanding.

**UDC:** The User Data Controls consent platform transformed the disjointed system through which Google once sought permission to store and use the personal data of its users and replaced it with a robust, carefully crafted set of native experiences that directly supported our product goals. Backed by deep user research and against impending regulatory deadlines, I defined a vision for the product, worked to get buy-in from a cross-functional set of senior stakeholders in key product areas from Android to Chrome to YouTube, and subsequently in a series of L-team meetings, to get UDC launched on all of our platforms.

What was once an area of weakness in the eyes of regulators and internally was a sore point in terms of product excellence, trust, and utility to Google's data needs, has become an area of strength. The EU Data Protection Authorities have gone so far as to praise their work with Google as a model, and our User Trust, Privacy, Legal, and Marketing teams rely on UDC as the foundation on which we can build our most forward-looking products.

**New data settings - [REDACTED]:** With the creation of the Lockbox settings to support an important Android Google Search launch, UDC unlocked new data sources for the use and improvement of all Google products. Larry and Sundar's vision for predictive product experiences based on deep user intelligence requires secure, centralized data, and meaningful user consents and controls. In a strong collaboration with leads on Google Now and Android, I built consensus with Privacy, Legal and Marketing to take data that was previously accessible only via on-device APIs or in isolated Google products, and enabled the storage of that data in a way that aligned directly with Google's product goals.

This solution also addressed the longstanding issue of Chrome data's complicated relationship with Google account data. Engaging directly at the SVP level, I helped engineer an agreement by which Chrome could continue to function with product independence, while also allowing users a meaningful choice to apply that data to power their Google experiences.

**PSB:** The most powerful aspects of how my team's work has improved the consent and data systems at Google are rooted in the [REDACTED], which is the underlying serving and auditing infrastructure for UDC. PSB solves two main challenges: 1) it creates a record of a user's consent and its context, so we know for any given user what they actually agreed to, and 2) it provides a framework through which we can maintain consistent language and eligibility

rules, providing a path to improve, update, or correct our user permission flows across every consent surface within 24 hours.

From the beginning, UDC TL jpweber [REDACTED] and I have had a shared vision for how the PSB infrastructure will be more broadly impactful as a consent service beyond core data collection settings at Google, and I have advocated aggressively and effectively for it to become a new Google standard. My work in helping craft the PWG Notice and Consent Policy provided further proof points of the need and value of this work. Moving beyond PSB's specific application to UDC settings, our initial integration with the Narnia project "Consent Bump" in the EU validated PSB as a powerful tool, and we are already in the process of supporting hundreds of millions of additional sensitive user consent moments in products as varied as ads settings, phone number reachability, and the worldwide Google Consent Bump moment as part of [REDACTED].

**Google Policy and Data products:** Beyond the permissions and consent product stack, I also recognized the sensitivity and relevance of the other privacy-related surfaces at Google that deal with personal data and how it is used at Google. As part of the [REDACTED], I proposed and led a broad set of changes that tie together our core product privacy experiences under a more cohesive and consistent vision: [REDACTED]

[REDACTED] the Google Policies site, which is linked prominently from every Google product and houses our core terms and privacy policies.

I partnered with owners of each of those products to drive substantive, user-facing changes that are fundamentally changing the way we talk about data and privacy with our users. Further, I launched an update to the Policies site and Privacy Policy that led to our recognition by TIME as having the best privacy policy among leading tech companies, and I then negotiated a total restructuring of our product ownership model to allow for leadership to reside in the [REDACTED] in Identity, with eng support split between [REDACTED] and [REDACTED]. Within this new cross-area structure, we have had multiple subsequent launches of the Privacy Policy and site, and also addressed longstanding access and regulatory concerns. Most importantly, we are now able to develop this highly visible product in tandem with our other efforts around building user trust, providing meaningful and durable impact for the future of this suite of products.

## User Data Controls

### Project description:

The goal of the User Data Controls project (UDC) is to enable Google's vision of magical, cross-product user experiences by giving users powerful controls over their data, and helping them

exercise those controls with meaningful, informed consent. This project originated as an [REDACTED] in 2013 to increase user trust by addressing internal and regulatory concerns about the collection and use of personal information in our products.

The basic user question UDC strives to address is a straightforward one: "What data does Google have about me, and what can I do about it?" Unfortunately the answer has historically been buried within a labyrinth of conflicting, undiscoverable settings and products. With a set of straightforward activity-based controls, UDC restructured the way users manage their data and reorganized those experiences into standardized formats that made them both accessible and comprehensible.

For Google, UDC has created a system that allows every Google product to build personalized, suggest-and-assist magic with the confidence that they are respecting the unique perspectives on personal data that each user brings.

The UDC system comprises three basic components:

The Privacy Settings Backend (PSB) is a flexible system for serving and recording consent events. For each user, PSB lets us know exactly what they agreed to, when they agreed to it, and what the context was. This audit trail is an important regulatory tool, while also providing large-scale metrics about consent events more broadly at Google. PSB also holds the logic that defines the availability of a consent, ensuring, for example, that we don't display sensitive legal agreements to users on ineligible devices, in unsupported regions, or who may not be of an appropriate age to legally provide consent. Because it is a centralized service, updates to consent language or logic can be propagated within hours. As our products evolve and as we respond to changes in the legal and regulatory environment, PSB provides a platform through which we can test, optimize, and comply without disrupting the development cycles of every affected Google product. PSB launched in conjunction with the sensitive UDC data settings, and now powers other high-profile consent events such as the Consent Bump and Narnia 2.0 projects.

The UDC Consent Dialog is backed by PSB and is the product surface of the incremental consent event to the user. The consent flows for UDC settings are typically in the form of in-product dialogs or screens, and they were created with input from a broad coalition of product, UX, marketing, and legal teams to meet a rigorous regulatory standard for opt-in consent. They are built as native solutions on Android, iOS, and web to be sensitive to the contexts and devices in which they are displayed, and to help achieve Google's marketing goals around user sentiment and trust. They are the foundation for the company-wide consent standards published by the Privacy org.

Google Activity Controls are the suite of settings that define the user's relationship with their Google activity data, sometimes known as "histories." The settings control the collection of user data and its association with a Google account. They are designed to be broad enough sets of data to be easily understandable to users, but granular enough to provide appropriate levels of

customization and control, all within the framework of the realities of Google's data and account infrastructure. The Activity Controls employ the UDC Consent Dialog and are made available to users natively on web, Android, and iOS. They are accessed directly through products such as My Account, Android Google Settings, GSA, and GMM.

### Key contributions:

Led the creation of a centralized Google user data permission platform that takes into account the needs of every Google product while meeting the disclosure and consent requirements of an evolving national and international privacy environment. Approved by L-team in a series of meetings as part of the [REDACTED]

- Created a design proposal for a Google-wide consent service that resolved often-conflicting requirements gathered via collaboration with senior leadership in Chrome, Android, Ads, Social, Search, YouTube, Privacy, Legal, Marketing, and PR. The challenge was to balance satisfying legal consent in a highly dynamic regulatory environment, enabling user comprehension of highly complicated Google data models in a simple and small form factor, aligning with the marketing-driven User Trust effort, and ensuring seamless and magical product experiences for the Google products that required access to these key data permissions.
- Led launches of Google-wide consent service on Android, Web, and iOS. The service is currently implemented or in the process of being implemented within every Google product that requests user permissions for specific types of data collection, and will make that data broadly available to all Google services and products to power the next generation of personal, intelligent product experiences.

Led design and creation of Google Activity Controls as a centralized suite of user data collection and management settings at the nexus of Google product, user trust, and legal/regulatory compliance. Approved by L-team, initially referred to as [REDACTED].

- The scope required gaining a deep understanding of every user data collection vector at Google, synthesizing them into a group of easily comprehensible settings that satisfied European regulatory commitments, ensuring seamless transitions and logical user experiences for all Google products, and delivering against tight, non-negotiable deadlines.
- Launched with access to users in Android settings, iOS Google My Account menus, and My Account on Web, as well as direct access within many Google apps and web products.
- Presentations at multiple L-Team reviews and creation of final project proposal with direct input and approval from Product Leads and executive leadership in Chrome, Android, Ads, Social, Search, YouTube, Privacy, Marketing, PR, and Legal.
- Key outcomes: initial launch completed weeks before deadline, coverage for every single Google user (including Apps/Dasher, G+) in all supported languages on both mobile and web, increases in user engagement up to 5x with data collection settings, press coverage for this potentially explosive issue was mixed/neutral and minimal, and continued praise when presented as one of the foundational cornerstones of our ongoing privacy negotiations with regulatory agencies in Europe

Led launch of the Privacy Settings Backend, which serves the user-facing components of the consent dialogs for Google's key data collection settings, stores an audit trail of the full context of the consent moment, and is now providing the serving, eligibility rules, and auditing capabilities for an expanded set of critically sensitive user consents under the [REDACTED].

- Previously, clients served individual versions of cross-Google consent language, and in most cases, no record of that consent experience was kept. Google can now track and optimize consents over time, and respond surgically to privacy incidents rather than, for example, re-consenting all Google users because of one bad set of translated text.
- Eligibility rules for user groups such as dasher, Unicorn, and regional or platform restrictions are often complicated and subject to change based on regulatory or product needs. This centralization ensure consistency with the rules, and allows them to be updated across all of our consent surfaces with a single change

- Changed scope on an existing design to be more applicable and useful to Google's core needs around data permissions
- Worked with Eng to define approach to supporting the core use cases of our initial launch, while maintaining the flexibility and extensibility to expand as a solution for additional sensitive consents at Google

Co-led launch of new Google Now opt-in flow and its continued experiments, creation of three new data collection settings for use in Google Now, and updated data history viewers. Made possible a critical GSA/Google Now product launch in early 2015, which has since consented over 300MM users to the unlocking of new, magical suggest-and-assist experiences, while importantly allowing those who wished to remain in a more privacy-restricted state to do so with an informed, conscious choice.

- Aligned executive leadership across Now, Android, Chrome, Search, Social, Ads, Privacy, Marketing, PR, and Legal on a new approach to the Google Now opt-in. Historically, Google Now's opt-in was not compatible with L-team's desire for clear, unified data control permissions that enable cross-Google use of data for the benefit of all Google products
- With Now leads, created and launched growth optimization opt-in experiment in a manner that worked around the GMSCore Winter code freeze - 1.5% increase in conversion rate with no engagement downside led to 100% launch rollout. This input will be factored into future UDC designs.
- Defined and launched two new account-level data collection settings with corresponding device-level controls: Web & App Activity and Device Information. This was particularly challenging due to the sensitive nature of the data being collected, the delicate and complicated balance between the expansion of an existing opt-out setting with a highly related, dependent opt-in setting, and the introduction of new, device-level controls that would still maintain their integrity across future versions and expansion to new devices.
- Defined scope and led integration of the Voice & Audio Activity setting into the corpus of existing data collection settings
- Even with the more significant disclosure and additional settings, \*increased\* user opt-in rate by 20%
- Defined and delivered an updatable framework, against considerable time constraints, that negotiated the synchronization of the UDC and Sidekick servers, allowing for any future client updates to maintain consistency. This solution will port seamlessly to the fully realized Now Opt-in integration with the UDC consent platform, on track for launch later this year.
- Owned the crucial 2-month final execution phase of the Opt-in launch for the team that owns the backend data storage and user-facing history viewers

Crafted solution to the longstanding unresolved issue of mobile Location settings integration, in accordance with guidance from L-team's [REDACTED] Fully implemented and launched on Android and iOS

- Proposed and negotiated a solution to centralization and simplification of Location settings. The [REDACTED] effort was initiated by L-team to tackle the issue of conflict between system, device, and account-level controls for location, as well as a variety of related controls such as wi-fi location and location sharing. Multiple previous proposals from the [REDACTED] team had been unsuccessful.
- Created a consistent approach across iOS, Android, and web platforms. Another challenge to a location resolution, both from a technical and logistical perspective, was the fact that each platform had different requirements, reported through a different Product Area, and had very different underlying technologies.
- Created plan to support offline settings access. One of the primary factors impeding a UDC integration solution was balancing long-term consistency across platforms and client versions with the desire for full offline support of settings. A hybrid solution that focused on in-product consents allowed the Location requirement for offline access to be separated from the product consent flows.
- Location History, arguably Google's most sensitive data collection setting, now benefits from the consistency, audit, and compatibility features of the UDC service.
- Integrations completed with GMM, Google Opinion Rewards, Maps Timeline completed, with Photos, GSA, and others at various phases of fishfood/dogfood

Led launch of iOS integration with SSO Account Management library

- Created unique platform solution for iOS, which does not have a concept of shared settings across apps and has more stringent design pattern restrictions

- Single-update client integration as part of existing Account Management library, with backwards compatibility for any future client library updates. This is especially important because of the lower update rate on iOS platform apps, and no auto-update of the SSO library, which does happen with Android GMScore.

Guided Unicorn project leads from product, eng, and legal on approach to parent controls of child data settings. Created product plan and adapted to changing Unicorn requirements to get to dogfood

- Led launch of UDC support for delegated parent-child consent in Android GMScore, enabling critical capabilities of the Familylink parental control app

Recognized for domain expertise for consent broadly at Google

- Established the UDC dialog for in-product consent as a canonical consent pattern in the Privacy Working Group Notice and Consent Guidelines and the In-Product Notice and Consent Policy, which establish the standards for gaining user consent at Google and are a key pillar of our commitments to European regulatory agencies. [go/notice-and-consent-policy](#)
- Continued consultations and presentations with Privacy, Policy, Legal and product teams from Narnia, Location, Unicorn, Dasher, Search, Maps, Ads and others on best practices, historical data, and research findings

## Project Description:

UDC is one of the cornerstones of the [REDACTED], including product tie-ins with Consent Bump, Privacy Guide, a reimagined privacy experience in Account Central and the newly created Google's Got Your Back marketing site.

For more detail please see [go/\[REDACTED\]](#)

## Key Contributions:

### Consent Bump

- Identified opportunity and drove execution of direct integration of Consent Bump dialogs with Privacy Settings Backend, enabling the full suite of consistency, update, and auditing features that were required for successful launch
- Launched modular solution for UDC settings that permits replication of the settings experience within captive experiences
- Led foundational UDC consent research and design, which defined the primary CB consent pattern. Signed-in user acceptance rates exceeded expectations
- UDC settings were the most accessed feature of Consent Bump flow by nearly double - see [go/\[REDACTED\]](#) for reach statistics
- UDC platform was prominently featured in presentations to European regulatory agencies as an example of Google's best efforts around data privacy

### Pennyworth / Privacy Checkup

- Built consensus around a design that allowed direct integration of UDC controls into Privacy Checkup to allow for in situ settings updates by users
- Privacy Checkup was one of the key pillars of the [REDACTED] effort to support [REDACTED] Consent Bump
- UDC settings were the most used feature of the Privacy Checkup - see [go/\[REDACTED\]](#) for reach statistics

- Took ownership of the Policies Site, launched a product update that was recognized externally as top among leading technology companies, and worked with GYB site and Account Central owners to create a more unified approach to user-facing privacy content - see Policies Site project for additional detail

### **Project description:**

The [REDACTED] lets users choose to unify their personal data under a single profile associated with their signed-in Google account, allowing them to control the information generated from Google's display ads network in the same way that they can currently manage their personal browsing histories and other saved activity as part of their Google Activity Controls (UDC). These users will unlock new and richer suggest-and-assist experiences in their Google products, and their data and personalization controls will become simpler and more powerful, allowing Google to respect their choices in more places, whenever and wherever they're signed in.

Primary user-facing features launch in June 2016

For more detail please see go/n[REDACTED]

### **Key contributions:**

With ads controls owner, led the cross-PA effort to update the data control landscape in response to the changes needed for [REDACTED]. Created new and interconnected controls between ads and data settings that provide a single global switch for users to manage the way they experience ads, while also providing unprecedented transparency and control over their Google data. Estimates of impact on Google's bottom line revenue are in the billions of dollars.

- Created a controls proposal that balanced needs of three often-conflicting goals: simple, comprehensible steady state user controls; an unintrusive, reassuring global consent moment; and focus on the upside for Google's business model
- Engaged with senior stakeholders from Ads, Legal, Privacy, Search, and Chrome to define and consider multiple control options over a period of months
- Led UX design and research in US and EU on user comprehension and likely impact at key consent moments across all affected data surfaces

Under the [REDACTED] branch of [REDACTED] proposed and led a number of key initiatives that focus on User Trust and are considered vital to the success of the project.

- Drove the creation and initial proposals for the My Activity product workstream, which is a dramatic re-imagining of the transparency product at history.google.com and is a centerpiece of the [REDACTED] effort. Continuing in ongoing collaboration with the Footprints team towards a June 2016 co-launch with the primary [REDACTED] consent
- In recognition of the impact beyond the core product associated with [REDACTED], led a Cross-PA Design sprint with Chrome, Ads, Footprints/Search, Legal, Privacy, and Identity to define a set of launches that will help unify the user experience across Google's most sensitive data and controls surfaces. Launches going out in phases before, during, and after the primary June 2016 [REDACTED] launch.
- With Chrome product leads, initiated aspects of the [REDACTED] which expands upon the work begun at the [REDACTED] Design sprint and directly addresses some of the most challenging user comprehension issues related to Chrome and Google account data
- Helped drive ideation and design on other key components of the [REDACTED] effort, such as Vanity Search and Personal History Search, providing deep background knowledge on research, design considerations, and inter-product tie-ins

Updated key data settings on Android devices to ensure the broadest possible impact of the Narnia consent event.

- Proposed and co-led a set of changes to allow for greater control over sensitive Google account data settings on Android devices
- Defined a solution that meet high standards for privacy and disclosure in collaboration with Privacy and Legal leads, while meeting the constraints of GMScore timelines.
- Built consensus around solution with Android, Search and Identity product and eng teams

## Policies Site

### Project description:

The Google policies site at [www.google.com/policies](http://www.google.com/policies) is the home for Google's two primary contractual agreements with users, hosts critical legal and regulatory resources, and is the primary access point to key product and marketing initiatives related to user privacy, security, and control.

As a key pillar of Google's compliance products, the site has become even more important as part of the recent larger User Trust effort led by Lorraine [REDACTED]. The site is linked from every Google product and sign-up flow, and with 200MM monthly pageviews, the site sees the most traffic of our three primary privacy resources for users. Updates or changes are closely monitored by regulators and privacy advocates around the world.

I volunteered to take ownership of the site to ensure a successful launch of the Narnia 1.0 project in the EU, and have since established a more robust and responsive ownership structure that allows us to continue to handle important regulatory responses alongside continued product development in the context of the broader User Trust effort.

### Key contributions:

Launched a visual refresh and restructuring of the Policies Site and Privacy Policy to align with goals of the User Trust effort and to support the goals of the [REDACTED] launch.

- Identified the opportunity and evangelized for inclusion of the project under [REDACTED] Privacy and Trust umbrella
- Created new vision for how the policies site fit into the larger user-facing privacy ecosystem, gathering input from Marketing, Policy, Legal, Privacy, and User Trust leads
- Changed the content, form, and structure of the policies site in support of [REDACTED] Pennyworth effort.
- Efforts resulted in Google's Privacy Policy receiving recognition by TIME as the best privacy policy among leading tech companies

Re-structured ownership of Policies site to ensure continued co-development in alignment with other User Trust products.

- Negotiated and executed a complicated and sensitive transition of policies site from Privacy Eng to allow for product ownership in User Trust group in Identity, and eng support split between G-Team (BrandStudio execution arm) and Identity Eng
- New support system is far more flexible and scalable to the bi-modal nature of core Google policy work. There may be multiple weeks with small, yet critical, tasks, alternating with month-long project sprints that require a dedicated team.

Led a series of important regulatory launches to improve user experience, expand product support, and deliver required policy updates.

- Against a non-negotiable deadline, executed a successful launch of an update to the Google Privacy Policy and an expansion update, and design update to the Google Product Privacy Guide

- Restructured Google's Privacy Troubleshooter and re-built the logic for how international access is handled; better aligned with approaches from other Namia-related products and dramatically improved access to the European Data Access Request form
- Created plan to drastically increase international and product coverage, addressing structural issues that created substandard experiences from China and limited access from product platforms such as Chrome OS and Android. Launching early Q2 2016

## OLD OLD OLD STUFF

The goal of the User Data Controls project (UDC) is to enable Google's vision of magical, cross-product user experiences by giving users powerful controls over their data, and helping them exercise those controls with meaningful, informed consent. This project originated as an L-team company-wide OKR initiative.

The basic user question UDC strives to address is a straightforward one: "What does Google know about me, and what can I do about it?" Unfortunately the answer has historically been buried within a labyrinth of conflicting, undiscoverable settings and products. With a set of straightforward activity-based controls, UDC restructured the way users manage their data and reorganized those experiences into standardized formats that made them both accessible and comprehensible.

For Google, UDC has created a system that allows every Google product to build personalized, suggest-and-assist magic with the confidence that they are respecting the unique perspectives on personal data that each user brings.

The UDC system comprises three basic components:

The Privacy Settings Backend (PSB) is a flexible system for serving and recording consent events. For each user, PSB lets us know exactly what they agreed to, when they agreed to it, and what the context was. This audit trail is an important regulatory tool, while also providing a large-scale metrics about consent events more broadly at Google. PSB also holds the logic that defines the availability of a consent, ensuring, for example, that we don't display sensitive legal agreements to users on ineligible devices, in unsupported regions, or who may not be of an appropriate age to legally provide consent. Because it is a centralized service, updates to consent language or logic can be propagated within hours. As our products evolve and as we respond to changes in the legal and regulatory environment, PSB provides a platform through which we can test, optimize, and comply without disrupting the development cycles of every affected Google product. PSB launched in conjunction with the sensitive UDC data settings, and now powers other high-profile consent events such as the Consent Bump and Narnia 2.0 projects.

The UDC Consent Dialog is backed by PSB and is the product surface of the incremental consent event to the user. The consent flows for UDC settings are typically in the form of in-product dialogs or screens, and they were created with input from a broad coalition of product, UX and legal teams to meet a rigorous regulatory standard for opt-in consent. They are built as native solutions on Android, iOS and web to be sensitive to the contexts in which they are displayed and to ensure they are equally effective on large and small devices. They are the foundation for the company-wide consent standards published by the Privacy org.

Google Activity Controls are the suite of settings that define the user's relationship with their Google activity data, sometimes known as "histories". The settings control the collection of data and its association with a Google account. They are designed to be broad enough sets of data to be easily understandable to users and in recognition of Google's infrastructure, but granular enough to provide appropriate levels of customization and control. The Activity Controls use the UDC Consent Dialog and are made available to users natively on web, Android and iOS, and accessed through products such as My Account, Android Google Settings, GSA, and GMM.

UDC remains a critical building block of our company-wide effort to improve user trust by providing improved controls and transparency. For example, UDC was a centerpiece of our 2015 Privacy Checkup tool (<https://myaccount.google.com/privacycheckup/1>), which has been used by 36MM users to date, and it was integral to the viability of the Consent Bump (>80MM users to date) and ████████ work. Moreover, the Privacy Settings Backend provides the auditable storage layer for consents garnered via Consent Bump (140MM users to-date). As we look ahead to 2016, we see a vibrant roadmap for the controls and their data-viewer UIs, and they remain central to forward-looking plans with respect to Google's privacy story.

#### OLD ERIC VERSION

The User Data Controls project grew out of a Google 2.0 workgroup in the second half of 2013. The project's goal is to put users more firmly in control of the data Google uses for cross-product magic: data like searches, web traversal, YouTube video views, location history, and much more.

The premise of UDC is simple: Users want to know what data Google "has" about them and how to control it. We have too often buried that information in confusing, non-obvious places. The UDC project has brought the important activity-style controls, often called "histories," onto logical, easily accessible surfaces while standardizing our treatment of the settings and their underlying data. The Activity Controls aggregation in My Account and in the Google Settings App are manifestations of the UDC work.

From a product perspective, UDC has three separate layers, each of which is reusable or extensible:

- **Privacy Settings Backend:** PSB (created to support UDC, and now powering other projects like Consent Bump) is a flexible system for storing consent events. PSB allows us to know what a user agreed to, when they agreed to it, the context in which agreement was given, the language and version of the agreement, etc. As our products evolve, as legal and regulatory contexts change, PSB gives us the ability to understand what parts of our specific agreements with users might need to be amended or updated.
- **Design pattern for incremental consent:** UDC's consent flow, created to support situations where we are asking for consent that is *incremental* to the Terms of Service and the Privacy Policy, is a new design coordinated across multiple product, UX and legal teams. It supports the most conservative regulatory standards for opt-in consent while working well in product, including on small devices. The UDC consent flow is the foundation for the consent standards published company-wide by the Privacy org.
- **The "Activity Controls":** The settings themselves control the collection of data — for example, if you have YouTube Search History enabled, your queries get saved for future personalization. If you turn the setting off, future queries don't get saved. If the setting is off and you delete all queries from your history, you have a blank slate with respect to your YouTube searches. There are enough settings to give you reasonably granular control, but not so many that it becomes a huge chore to configure your account.

The UDC project has laid the foundation for "suggest and assist" magic while avoiding privacy surprises. UDC lives at the nexus of great product, user trust, and legal/regulatory compliance — a unique and fundamental building block for Google's future.

And UDC remains a critical building block of our company-wide effort to improve user trust by providing improved controls and transparency. For example, UDC was a centerpiece of our 2015 Privacy Checkup tool (<https://myaccount.google.com/privacycheckup/1>), which has been used by 36MM users to date, and it was integral to the viability of the Consent Bump (>80MM users to date) and Narnia work. Moreover, the Privacy Settings Backend provides the auditable storage layer for consents garnered via Consent Bump (140MM users to-date). As we look ahead to 2016, we see a vibrant roadmap for the controls and their data-viewer UIs, and they remain central to forward-looking plans with respect to Google's privacy story.